CLAIMS

1. A device for time-managing the utilization of data detected in a data flow and constituting at least one data set, the device comprising a circuit for processing the data detected, a memory (Z1, Z2) making it possible to store the data detected, the data currently being processed, the processed data intended to be utilized and the processed data undergoing utilization, the utilization of the processed data having to be triggered at a given theoretical instant (T_R), characterized in that it comprises a circuit (MP) for calculating a minimum duration (d) of utilization of the data, which is proportional to the amount (L) of data contained in the data set.

2. The device as claimed in claim 1, characterized in that the minimum duration (d) is an increasing function of the size of an area of the memory (Z1, Z2) empty of data.

3. The device as claimed in claim 2, characterized in that the minimum duration (d) is proportional, at the instant $t+\Delta t$, to the quantity $Xp(t+\Delta t)$ such that:

$Xp(t+\Delta t) = K_P \times EM(t+\Delta t)$ where

K_P is a positive real number and $EM(t+\Delta t)$ a data item representing the size of the area of the memory (Z1, Z2) empty of data at the instant $t+\Delta t$, Δt representing the duration separating the detection of two successive data sets.

4. The device as claimed in claim 3, characterized in that the minimum duration (d) is proportional, at the instant $t+\Delta t$, to the quantity $Xp,i(t+\Delta t)$ such that:

$Xp,i(t+\Delta t) = Xp(t+\Delta t) + Ki \times I(t+\Delta t)$, where

Ki is a positive real number, and

$I(t+\Delta t) = I(t) - R$ with $I(t+\Delta t)$ such that $-I1 < I(t+\Delta t) < I2$ and

$R = T_A - T_R$, T_A being the instant at which the utilization of the data begins and T_R the theoretical instant at which the utilization of the data is to be triggered.

5. The device as claimed in claim 4, characterized in that the minimum duration is proportional, at the instant $t+\Delta t$, to the quantity $Xp,i,d(t+\Delta t)$ such that:

$Xp,i,d(t+\Delta t) = Xp,i(t+\Delta t) - Kd \times (EM(t+\Delta)-EM(t))/\Delta t)$, where

Kd is a positive real number.

6. The device as claimed in any one of claims 1 to 5, characterized in that the area of the memory (Z1, Z2) for storing the processed data intended to be utilized is divided into various memory spaces each containing a data set and in that it comprises a counter (CNT) for tagging the various memory spaces as they are being filled so that the utilized data are those contained in the memory space tagged first.

7. The device as claimed in any one of claims 1 to 6, characterized in that the detected data set represents a subtitle consisting of coded data detected in a flow of data conveyed according to the MPEG 2 System transport standard and in that the processing circuit is a circuit for decoding the coded data, the utilization of the data being the displaying of the decoded data on screen.

8. A decoder operating as claimed in the MPEG 2 video standard, characterized in that it comprises a device as claimed in claim 7.

9. A process for time-managing the utilization of data detected in a data flow and constituting at least one data set, the process comprising a step of storing the detected data, a step of processing the stored data, a step of storing the data emanating from the processing step and a step of utilizing the stored data emanating from the processing step, the utilization of the processed data having to be triggered at a given theoretical instant (T_R), characterized in that it comprises a step of calculating a minimum duration (d) of utilization of the data, which is proportional to the amount of data (L) contained in the data set.

10. The process as claimed in claim 9, characterized in that the minimum duration (d) is an increasing function of the size of a data storage area empty of data.

11. The process as claimed in claim 10, characterized in that the increasing function is proportional to the quantity $Xp(t+\Delta t)$ such that:

$Xp(t+\Delta t) = K_P \times EM(t+\Delta t)$, where

K_P is a positive real number and $EM(t+\Delta t)$ a data item representing the size of the data storage area empty of data at the instant

$t+\Delta t$, Δt being a duration representing the detection of two successive subtitles.

12. The process as claimed in claim 11, characterized in that the increasing function is proportional, to the quantity $Xp,i(t+\Delta t)$ such that:

$Xp,i(t+\Delta t) = Xp(t+\Delta t) + Ki \times I(t+\Delta t)$, where

Ki is a positive real number, and

$I(t+\Delta t) = I(t) - R$ with $I(t+\Delta t)$ such that $-I1 < I(t+\Delta t) < I2$, and

$R = T_A - T_R$, T_A being the instant at which the utilization of the data begins

and T_R the theoretical instant at which the utilization of the data is to be triggered.

13. The process as claimed in claim 12, characterized in that the increasing function is proportional to the quantity $Xp,i,d(t+\Delta t)$ such that:

$Xp,i,d(t+\Delta t) = Xp,i(t+\Delta t) - Kd \times (EM(t+\Delta t)-EM(t))/\Delta t)$, where

Kd is a positive real number.

14. The process as claimed in any one of claims 9 to 13, characterized in that it comprises a step of counting making it possible for the utilized data to be the data emanating from the processing step which has been stored for the longest time.

15. The process as claimed in any one of claims 9 to 14, characterized in that the set of data detected in the data flow represents a subtitle consisting of coded data in a data flow conveyed according to the MPEG 2 System transport standard, in that the processing of the data is the decoding of the coded data and in that the utilization of the data is the displaying of the decoded data on screen.

16. The process as claimed in claim 15, characterized in that the minimum duration (d) of display of the decoded data is proportional to a parameter (m) dependent on weighting means related to the language in which the subtitle is to be displayed.

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